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| UNITED STATES PATENT AND TRADEMARK OFFICE | | Phone:<br>Alt Phone: | (571) 272-7849<br>(571) 272-7876 |
| Pages: | Cover + 1 + 1 + 1 + 17 = 21 | Date: | December 20, 2005 |
| | | | |
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*CERTIFICATION OF FACSIMILE TRANSMISSION UNDER 37 CFR 1.8*

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Georgann S. Grunebach, Reg. No. 33,179 — December 20, 2005 (Date of Signature)

Telephone No. (310) 964-4615 (Printed Name of Person Signing Certificate)

**Attention: Commissioner for Patents** **Attorney Docket No. PD-200031**

Please find attached Re:

Serial No.: 09/584,012 Filing Date: May 30, 2000

- TRANSMITTAL FORM PTO/SB/21 (1 page)
- FEE TRANSMITTAL PTO/SB/17 (1 page in duplicate)
- BRIEF ON APPEAL (17 pages)

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# TRANSMITTAL FORM

*(to be used for all correspondence after initial filing)*

| | |
|---|---|
| Total Number of Pages in This Submission | 20 |

| | |
|---|---|
| Application Number | 09/584,012 |
| Filing Date | May 30, 2000 |
| First Named Inventor | Ming U. Chang |
| Art Unit | 2682 |
| Examiner Name | CRAVER, Charles R. |
| Attorney Docket Number | PD-200031 |



## ENCLOSURES *(Check all that apply)*

- [x] Fee Transmittal Form
  - [ ] Fee Attached
- [ ] Amendment/Reply
  - [ ] After Final
  - [ ] Affidavits/declaration(s)
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- [ ] Express Abandonment Request
- [ ] Information Disclosure Statement
- [ ] Certified Copy of Priority Document(s)
- [ ] Reply to Missing Parts/ Incomplete Application
  - [ ] Reply to Missing Parts under 37 CFR 1.52 or 1.53
- [ ] Drawing(s)
- [ ] Licensing-related Papers
- [ ] Petition
- [ ] Petition to Convert to a Provisional Application
- [ ] Power of Attorney, Revocation Change of Correspondence Address
- [ ] Terminal Disclaimer
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- [ ] CD, Number of CD(s) _____
  - [ ] Landscape Table on CD
- [ ] After Allowance Communication to TC
- [ ] Appeal Communication to Board of Appeals and Interferences
- [x] Appeal Communication to TC **(Appeal Notice, Brief, Reply Brief)**
- [ ] Proprietary Information
- [ ] Status Letter
- [ ] Other Enclosure(s) (please identify below):

**Remarks**

Fee Transmittal for Appeal Brief fee under 37 CFR 41.20(b)(2) in the amount of $500.00 submitted in duplicate.

## SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

| | | | |
|---|---|---|---|
| Firm Name | The DirecTV Group, Inc. | | |
| Signature | | | |
| Printed name | Georgann S. Grunebach | | |
| Date | December 20, 2005 | Reg. No. | 33,179 |

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*Effective on 12/08/2004.*
*Fees pursuant to the Consolidated Appropriations Act, 2005 (H.R. 4818).*

# FEE TRANSMITTAL
## For FY 2005

☐ Applicant claims small entity status. See 37 CFR 1.27

| TOTAL AMOUNT OF PAYMENT | ($) | 500 |
|---|---|---|

| Complete if Known | |
|---|---|
| Application Number | 09/584,012 |
| Filing Date | May 30, 2000 |
| First Named Inventor | Ming U. Chang |
| Examiner Name | CRAVER, Charles R. |
| Art Unit | 2682 |
| Attorney Docket No. | PD-200031 |

**METHOD OF PAYMENT** (check all that apply)

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☑ Deposit Account Deposit Account Number: 50-0383 Deposit Account Name: The DIRECTV Group, Inc.

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**FEE CALCULATION**

**1. BASIC FILING, SEARCH, AND EXAMINATION FEES**

| Application Type | FILING FEES Fee ($) | FILING FEES Small Entity Fee ($) | SEARCH FEES Fee ($) | SEARCH FEES Small Entity Fee ($) | EXAMINATION FEES Fee ($) | EXAMINATION FEES Small Entity Fee ($) | Fees Paid ($) |
|---|---|---|---|---|---|---|---|
| Utility | 300 | 150 | 500 | 250 | 200 | 100 | |
| Design | 200 | 100 | 100 | 50 | 130 | 65 | |
| Plant | 200 | 100 | 300 | 150 | 160 | 80 | |
| Reissue | 300 | 150 | 500 | 250 | 600 | 300 | |
| Provisional | 200 | 100 | 0 | 0 | 0 | 0 | |

**2. EXCESS CLAIM FEES**

| Fee Description | Fee ($) | Small Entity Fee ($) |
|---|---|---|
| Each claim over 20 (including Reissues) | 50 | 25 |
| Each independent claim over 3 (including Reissues) | 200 | 100 |
| Multiple dependent claims | 360 | 180 |

Total Claims _____ - 20 or HP = _____ x _____ = _____ Fee Paid ($)

HP = highest number of total claims paid for, if greater than 20.

Indep. Claims _____ - 3 or HP = _____ x _____ = _____ Fee Paid ($)

HP = highest number of independent claims paid for, if greater than 3.

Multiple Dependent Claims Fee ($) _____ Fee Paid ($) _____

**3. APPLICATION SIZE FEE**

If the specification and drawings exceed 100 sheets of paper (excluding electronically filed sequence or computer listings under 37 CFR 1.52(e)), the application size fee due is $250 ($125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).

Total Sheets _____ - 100 = _____ Extra Sheets / 50 = _____ Number of each additional 50 or fraction thereof (round up to a whole number) x _____ Fee ($) = _____ Fee Paid ($)

**4. OTHER FEE(S)**

| | Fees Paid ($) |
|---|---|
| Non-English Specification, $130 fee (no small entity discount) | |
| Other (e.g., late filing surcharge): Filing a brief in support of an appeal pursuant to 37 CFR 41.20(b)(2) | 500 |

**SUBMITTED BY**

| Signature | | Registration No. (Attorney/Agent) 33,179 | Telephone (310) 964-4615 |
|---|---|---|---|
| Name (Print/Type) | Georgann S. Grunebach | | Date December 20, 2005 |

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Georgann S. Grunebach (Name of Applicant, Assignee or Registered Representative)

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***Patent***
***PD-200031***

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**
**BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

In re Application of:

Ming U. Chang, et al.

Serial No.: 09/584,012 Group Art Unit: 2682

Filed: 05/30/2000 Examiner: Craver, Charles R.

For: MULTI-NODE WIRELESS COMMUNICATION SYSTEM WITH MULTIPLE TRANSPONDING PLATFORMS

**BRIEF ON APPEAL**

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

Sir:

The following Appeal Brief is submitted in response to the Notice of Appeal filed October 27, 2005.

12/21/2005 MGEBREN1 00000105 500383 09584012
01 FC:1402 500.00 DA

## I. Real Party in Interest

The real party in interest in this matter is The DirecTV Group, Inc., of El Segundo, California which is 34 percent owned by Fox Entertainment Group, which is approximately 82 percent owned by The News Corporation, Limited.

## II. Related Appeals and Interferences

There are no other known appeals or interferences which will directly affect or be directly affected by or have bearing on the Board's decision in the pending appeal.

## III. Status of the Claims

Claims 1-18 stand rejected in the Final Office Action.

## IV. Status of Amendments

There have been no amendments filed subsequent to the Advisory Action mailed October 18, 2005.

## V. Summary of Claimed Subject Matter

The present invention is generally shown in Figs. 1 and 3. In Fig. 1, the forward link mode is illustrated. In Fig. 3, the receive mode is shown. Both Figs. 1 and 3 illustrate a mobile wireless communication system 10 that includes a plurality of individual transponding nodes illustrated as satellites 16. A central processing hub 12 and a plurality of mobile terminals 18 is illustrated. This is described on page 7, the paragraph beginning on line 7. As recited, the central processing hub is in communication with each of the plurality of individual transponding nodes 16 such that a downlink signal processed by the central processing hub 12 is preprocessed so that the signal is radiated using a plurality of radiated signals with compensating time delay to the plurality of individual transponding nodes. This is generally described on page 7, lines 23-27. The preprocessing is generally described with respect to Fig. 2 beginning on page

8, paragraph 25, through page 11, line 22. More specifically, page 8, lines 27 through page 9, line 2, states that the hub tracks updates and forward predicts the time variant differential information among various paths between the hub 12 and the user terminals 18. This is the preprocessing so that the plurality of radiated signals with compensating time delays to the plurality of individual transponding nodes is determined.

Claim 1 also recites that the mobile terminals associated with respect to remote users receive the radiated signals from each of the plurality of individual transponding nodes simultaneously so that the radiated signals are added together coherently. This is specifically set forth on page 11, lines 5-7. The insertion of the time delays is also described on page 11, lines 12-19.

The plurality of mobile terminals also generates a return signal and directs the return signal through the plurality of transponding nodes. This is generally set forth in Fig. 3.

Claim 1 also recites that the central processing hub processes the return signal to compensate for path differentials. This is specifically set forth on page 15, lines 16-19.

Claim 2 recites that the plurality of individual transponding nodes is an individual satellite. The use of satellites is set forth in Fig. 1 and is described on page 7, lines 10-15.

Claim 3 specifically recites that the plurality of individual transponding nodes is a high altitude platform. This is set forth in Fig. 8 as element 108 and is described on page 16, lines 1-9.

Claim 4 recites that the plurality of individual transponding nodes is a transmitter tower. This is set forth as element 104 of Fig. 6. The description is also set forth on page 16, lines 1-9.

Claim 5 recites that the plurality of individual transponding nodes is a balloon. This is set forth on page 18, line 2.

Claim 6 recites that the central processing hub 12 processes the signal such that all intended signals will arrive in phase for an intended remote user and out of phase for all other remote users. This is set forth on page 18, lines 12-17.

Claim 7 recites that in a reverse link mode, the plurality of mobile terminals transmit signals to the plurality of individual transponding nodes, which then radiate the signals to the central processing hub for processing. This is set forth on page 17, lines 19-25.

Claim 8 is an independent claim directed to a method for communicating with a hand held terminal. Claim 8 recites a method for communicating with a mobile hand held terminal that includes processing a local user signal for both forward and return links at a central processing hub. This is set forth on page 17, lines 1-18. Claim 8 further recites radiating the signal through the multiple pass or transponder node. This is also set forth on page 17, lines 1-15. Claim 8 further recites receiving the signals at the plurality of transponding nodes and re-radiating the signals from the plurality of transponding nodes to the mobile hand held terminal. This is set forth on page 17, lines 10-15. Claim 8 further recites receiving the forward link signals from the plurality of transponding nodes at the mobile hand-held terminal whereby the re-radiated signal will be received coherently only for an intended remote user associated with the mobile hand-held terminal. This is set forth on page 11, lines 5-7. Claim 8 further recites transmitting a plurality of return signals from the mobile hand-held terminal to the central processing hub through the paths or transponder nodes. This is illustrated in Fig. 3 and is described on page 11, line 23 through page 12, line 9.

Claim 8 further recites post-processing the plurality of return time signals to compensate for path differentials by the hub processor. A post processor is set forth as element 44 of Fig. 4. This is also set forth on page 15, lines 11-26.

Claim 9 specifically recites transmitting the return link signals to the plurality of transponding nodes from the mobile hand-held terminal whereby the signals are processed coherently by the hub processor. This is also set forth on page 15, lines 11-27.

Claim 10 recites that the signals are received by a high altitude platform system. A high altitude platform system is illustrated as element 108 of Fig. 6 and is described on page 16, line 7.

Claim 11 recites that the signals are received by a plurality of manned or unmanned airships. This is set forth in line 2 of page 18.

Claim 12 recites that the signals are received by a plurality of balloons. The balloons are described also in line 2 of page 18.

Claim 13 recites that the signals are received by a plurality of manned or unmanned airplanes. This is also set forth in line 2 of page 18.

Claim 14 recites that the signals are received by a tower-based cellular network. A tower is illustrated in Fig. 6, element 104. This is set forth in line 4 on page 16.

Claim 15 recites that the signals are received by a space-based system. This is set forth in several places including page 18, line 4.

Claim 16 is similar to Claim 1 but rather than a plurality of individual transponding nodes, the first element is set forth as individual transponder nodes selected from one or more of the following types, tower-based cellular network, a high altitude platform system, or a space-based satellite system. Support for these elements is set forth on page 16, lines 1-9. The remaining portions of Claim 16, including the central processing hub, the mobile terminal, and the central processing hub processing the return signal, are all set forth in the description of Claim 1 above.

Claim 17 recites that the plurality of individual transponder nodes that radiate the signals to the intended user are all of the same type. This is specifically set forth on page 19, lines 2-4.

Claim 18 recites that the plurality of individual transponder nodes that radiate the signals to the intended user are selected from at least two of said platform. This is also set forth on page 19, lines 2-4.

## VI. Grounds of Rejection to be Reviewed on Appeal

The following issues are presented in this appeal:

Whether Claims 1, 4, 6-9, 14, 16, 17 and 18 are obvious under 35 U.S.C. §103(a) over *Naidu*, et al. (5,805,983) in view of *Kao* (6,175,737).

Whether Claim 2 is obvious under 35 U.S.C. §103(a) over *Naidu* in view of *Kao* as applied to Claim 1 above, in further view of *Christian* (5,361,398).

Whether Claims 10 and 15 are obvious under 35 U.S.C. §103(a) over *Naidu*, et al. in view of *Kao* as applied to Claim 8 above, in further view of *Christian*.

Whether Claims 5 and 11-13 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Naidu* in view of *Kao* and *Ibanez-Meier* (5,949,766).

## VII. Argument

### The Rejection of Claims 1, 4, 6-9, 14, and 16-18 as being unpatentable over *Naidu*, et al. in view of *Kao*

**Claim 1.**

The *Naidu* reference is very different than that of the present application. The *Naidu* reference is directed to a distributed antenna network that employs compensating time delays along each of the transmission paths (Col. 1, lines 38-41). Admittedly, the delay compensators may be in the central units. The areas of the specification pointed to by the Examiner in Col. 5, lines 14-59, Col. 6, lines 29-45, and Col. 2, lines 35-65, provide good teachings. The Applicants also direct the Examiner to the background of the invention, Col. 1, lines 10-25. From this it is clear that the goal of the *Naidu* reference is very different than that of the present application. That is, the *Naidu* reference uses various antennas $100_1$-$100_n$ that are spaced apart from each other, e.g. in different cells like that shown in Fig. 1). The goal of the *Naidu* reference is to have each of the antennas transmit at the same time. The delay compensation blocks 115 and the delay detection blocks 110 are used to compensate for various path length differentials in each of the paths 102. The goal of the *Naidu* reference is to transmit from each of the antennas at the same time by compensating for the delay factors in each transmission line. This is contrasted by the present application that radiates with compensating time delays so that a mobile terminal receives the signals at the same time so that they are added together coherently. The *Naidu* reference is not capable of this

aspect because the delays are focused before the antenna. Also in the present invention, the central processing hub processes the return signals from the mobile terminals to compensate for path delays from the mobile terminals. The time compensation blocks 115 of the *Naidu* reference do not perform this function. The paths of the *Naidu* reference compensate for the path lengths to the antenna rather than the path lengths from a remote mobile terminal. A mobile terminal in the *Naidu* environment due to its ever-changing distances from the antennas could not be compensated for by the relatively fixed delays set forth therein. This is significantly different than that of the present application. In short, because of these differences, coherent addition of the radiated signals at a mobile terminal using the teachings of *Naidu* is simply not possible.

In the Final Office Action, the Examiner points to Col. 1, lines 24-27, which states "the present invention also synchronizes bursts so that air frame timing between cells served by the remote antenna units is enhanced and the hand-off performance therebetween is improved." Appellants respectfully submit that hand-off performance is very different than coherently adding signals together. When signals are added together, slight changes in timing cause the signal to be out of phase and thus coherent adding does not take place. Handing off signals does not require such precise timing. Appellants respectfully submit if such precise timing was clear, the position of the mobile terminals relative to the antennas would be taken into account as in the present invention. In the *Naidu* reference it is precise enough for the antennas to be transmitting at the same time. The mere idea of handing off is completely different than coherently adding. Handing off is the act of switching from receiving signals from one antenna to receiving signals from another antenna, whereas coherently adding as set forth in the present invention actually adds the signals together from the different antennas.

The *Kao* reference also does not teach or suggest such limitations. The *Kao* reference is set forth for disclosing "the utility of connecting a BSC 8 such as taught by Schmidt to a BTS 7 using a wireless connection (col 4 line 45-col 5 lines 14)." Appellants admit that the base station and the base station controllers may be connected

by either a conventional wire line interface or a wireless trunk interface as is set forth in Col. 6, lines 19-24. Thus, even when the *Kao* reference is combined with the *Naidu* reference, the present invention cannot be formed. The *Kao* reference also does not teach or suggest coherently adding the signals together and the other elements described above that are missing from the *Naidu* reference.

Appellants respectfully submit that the motivation provided by the Examiner is merely hindsight reconstruction formed by picking and choosing elements from the prior art in view of the Appellants' disclosure but, even when combined, the present invention is not formed. Appellants therefore respectfully request the Board to reverse the Examiner's rejection of Claim 1.

**Claim 4**

Claim 4 recites that the transmitting nodes may be a transmitter tower. The Examiner points to the *Kao* reference for this teaching. Appellants respectfully submit that the word tower is never used in the *Kao* reference. Also, there is no teaching or suggestion for the combination of a tower with the recitation of Claim 1. Therefore, Appellants respectfully request the Board to reverse the Examiner's position with respect to Claim 4.

**Claim 6**

Claim 6 recites that the central processing hub processes the signal such that all intended signals will arrive in phase for an intended remote user and out of phase for all other remote users. Appellants have reviewed the *Naidu* and *Kao* references and can find no teaching or suggestion for in phase and out of phase. As the Examiner points out above, the *Naidu* reference is concerned with hand-offs and not coherently adding signals together which would be in phase. Also, no teaching or suggestion is provided for out of phase signals for all other remote users. Appellants therefore respectfully request the Board to reverse the Examiner's position with respect to Claim 6 as well.

**Claim 7**

Claim 7 recites that the in the reverse link mode, the plurality of mobile terminals transmits signals to the plurality of individual transponding nodes which then radiate the signals to the central processing hub for processing. Neither of the references use a plurality of individual transponding nodes which transmit the signals to the central processing node through the plurality of individual transponding nodes. Appellants therefore respectfully request the Board to reverse the Examiner's position with respect to Claim 7.

**Claim 8**

Claim 8 is a method claim but includes similar limitations to those of Claim 1. Claim 8 specifically recites receiving the forward link signals from the plurality of transponding nodes at the mobile hand-held terminal whereby the re-radiated signal will be received coherently only for an intended remote user associated with the mobile hand-held terminal and post-processing a plurality of return time signals to compensate for path differentials by the hub processor. These limitations are similar to Claim 1 and are believed to be not taught or suggested as described above with respect to the *Naidu* reference. Appellants therefore respectfully request the Board to reverse the Examiner's position with respect to Claim 8 as well.

**Claim 9**

Claim 9 recites the step of transmitting the return link signals to the plurality of transponding nodes from the hand-held terminal whereby the signals are processed coherently by the hub processor. None of the references teach transmitting return link signals to a plurality of transponding nodes and coherently processing them at the hub processor. Appellants therefore respectfully request the Board to reverse the Examiner's position with respect to Claim 9 as well.

**Claim 14**

Claim 14 depends from Claim 8 and recites the tower-based cellular network. As mentioned above in the argument for Claim 4, no teaching or suggestion is provided in either reference for a tower. Appellants therefore respectfully request the Board to reverse the Examiner's position with respect to Claim 14 as well.

**Claim 16**

Claim 16 is an independent claim directed to the mobile wireless communication system. Claim 16 specifically recites a mobile terminal associated with an intended user for receiving the radiated signals from each of the plurality of individual transponder nodes coherently, thereafter simultaneously generating a return signal and directing the return signal through the plurality of individual transponding nodes. Claim 16 also recites that the radiated signals if received by a non-intended user, are received incoherently and that the central processing hub processes the return signal to compensate for path differentials. As mentioned above with respect to Claim 1, these elements are not taught or suggested in either the *Naidu* or the *Kao* reference. Therefore, Appellants respectfully request the Examiner to request the Board to reverse the Examiner's position with respect to Claim 16 as well.

**Claim 17**

Claim 17 recites that the individual transponder nodes are all of the same type. This in combination with the recitations of Claim 16 are not taught or suggested in either the *Naidu* or the *Kao* references. Therefore, Appellants respectfully request the Board reverse the Examiner's position with respect to Claim 17 as well.

**Claim 18**

Claim 18 recites that the transponder nodes are selected from at least two of the platforms. This in combination with the elements of Claim 16 are not taught or suggested

in the combination of the *Naidu* and *Kao* references. Therefore, Appellants respectfully request the Board reverse the Examiner's position with respect to Claim 18 as well.

**The Rejection of Claim 2 as being unpatentable over *Naidu*, et al. in view of *Kao* as applied to Claim 1 above, in further view of *Christian***

**Claim 2**

Claim 2 recites that the plurality of individual transponding nodes is an individual satellite. Although a satellite is taught in the *Christian* reference, no teaching or suggestion is provided in the *Christian* reference for the elements missing from the *Naidu* reference described above in Claim 1. Appellants therefore respectfully request the Board reverse the Examiner's position with respect to Claim 2 as well.

**The Rejection of Claims 10 and 15 as being unpatentable over *Naidu*, et al. in view of *Kao* as applied to Claim 8 above, in further view of *Christian***

**Claims 10 and 15**

Claims 10 and 15 depend from Claim 8 and recites that the signals are received by a high altitude platform. Claim 15 recites that the signals are received by a space-based system. Appellants admit that the *Christian* reference describes a satellite but does not teach or suggest the elements missing from Claim 8. Namely, the *Christian* reference does not teach that the signals from the transponding nodes are added together coherently and that the processing hub compensates for path differentials. Appellants therefore respectfully request the Board reverse the Examiner's position with respect to Claims 10 and 15 as well.

**The Rejection of Claims 5 and 11-13 as being unpatentable over *Naidu* in view of *Kao* and *Ibanez-Meier***

**Claim 5**

Claim 5 recites that the transponding nodes comprise a balloon. Appellants admit that the *Ibanez-Meier* reference teaches a balloon. However, the *Ibanez-Meier* reference does not teach or suggest the elements missing from the *Naidu* reference described above with respect to Claim 1. Appellants therefore respectfully request the Board reverse the Examiner's position with respect to Claim 5 as well.

**Claims 11-13**

Claims 11-13 recite the types of transponding nodes and unmanned airships, balloons and manned or unmanned airplanes, respectively. However, the *Ibanez-Meier* reference does not teach or suggest the elements missing from the *Naidu* reference described above with respect to Claim 8. Appellants therefore respectfully request the Board reverse the Examiner's position with respect to Claim 11-13 as well.

## VII. Claims Appendix

A copy of each of the claims involved in this appeal, namely Claims 1-18.

## VIII. Evidence Appendix

None.

## IX. Related Proceedings Appendix

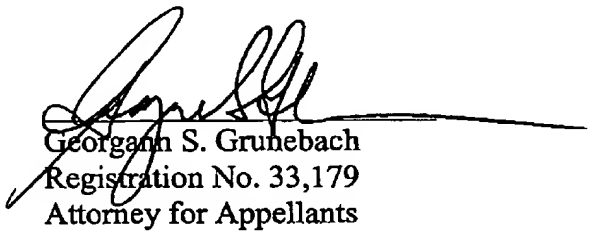
None.

## X. Conclusion

For the foregoing reasons, Appellants respectfully request that the Board direct the Examiner in charge of this examination to withdraw the rejections.

Please charge the amount of $500.00 required in the filing of this appeal to deposit account 50-0383. Fee Transmittal Form PTO/SB/17 is enclosed in duplicate.

Respectfully submitted,



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Date: December 20, 2005

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## CLAIMS APPENDIX

1. A mobile wireless communication system, comprising:

a plurality of individual transponding nodes;

a central processing hub in communication with each of the plurality of individual transponding nodes, such that a downlink signal processed by said central processing hub is preprocessed so that the signal is radiated using a plurality of radiated signals with compensating time delays to the plurality of said individual transponding nodes; and

a plurality of mobile terminals associated with respective remote users for receiving said radiated signals from each of said plurality of individual transponding nodes simultaneously so that the radiated signals are added together coherently and thereafter simultaneously generating a return signal and directing the return signal through the plurality of individual transponding nodes;

said central processing hub processing the return signal to compensate for path differentials.

2. The wireless communication system of claim 1, wherein one or more of said plurality of individual transponding nodes is an individual satellite.

3. The wireless communication system of claim 1, wherein one or more of said plurality of individual transponding nodes is a high altitude platform.

4. The wireless communication system of claim 1, wherein one or more of said plurality of individual transponding nodes is a transmitter tower.

5. The wireless communication system of claim 1, wherein one or more of said plurality of individual transponding nodes is a balloon.

6. The wireless communication system of claim 1, wherein said central processing hub processes said signal such that all intended signals will arrive in-of-phase for an intended remote user, and out-of-phase for all other remote users.

7. The wireless communication system of claim 1, wherein in a reverse link mode, said plurality of mobile terminals transmit signals to said plurality of

individual transponding nodes, which then radiate said signals to said central processing hub for processing.

8. A method for communicating with a mobile hand-held terminal, comprising:

processing a local user signal for both forward and return links at a central processing hub;

radiating said signal through multiple paths or transponder nodes;

receiving said signals at a plurality of transponding nodes;

re-radiating said signals from said plurality of transponding nodes to the mobile hand-held terminal;

receiving said forward link signals from said plurality of transponding nodes at the mobile hand-held terminal whereby said re-radiated signal will be received coherently only for an intended remote user associated with the mobile hand-held terminal;

transmitting a plurality of return signals from the mobile hand-held terminal to the central processing hub through the paths or transponder nodes; and

post-processing the plurality of return time signals to compensate for path differentials by the hub processor.

9. The method of claim 8, further comprising:

transmitting said return link signals to said plurality of transponding nodes from mobile hand-held terminals whereby signals are processed coherently by the hub processor.

10. The method of claim 8, wherein said signals are received by a high altitude platform system.

11. The method of claim 10, wherein said signals are received by a plurality of manned or unmanned airships.

12. The method of claim 10, wherein said signals are received by a plurality of balloons.

13. The method of claim 10, wherein said signals are received by a plurality of manned or unmanned airplanes.

14. The method of claim 8, wherein said signals are received by a tower based cellular network.

15. The method of claim 8, wherein said signals are received by a space based system.

16. A mobile wireless communication system for mobile users, comprising:

a plurality of individual transponder nodes selected from one or more of the following node types: a tower based cellular network, a high altitude platform system or a space-based satellite system;

a central processing hub in communication with each of said plurality of individual transponder nodes, whereby a signal processed by said central processing hub is radiated with compensating time delays to said plurality of individual transponders; and

a mobile terminal associated with an intended user for receiving said radiated signals from each of said plurality of individual transponder nodes coherently thereafter simultaneously generating a return signal and directing the return signal through the plurality of individual transponding nodes;

whereby said radiated signals, if received by a non-intended user, are received incoherently;

said central processing hub processing the return signal to compensate for path differentials.

17. The mobile wireless communication system of claim 16, wherein said plurality of individual transponder nodes that radiate said signals to said intended user are all of the same type.

18. The mobile wireless communication system of claim 16, wherein said plurality of individual transponder nodes that radiate said signals to said intended user are selected from at least two of said platforms.